=> fil lreg

FILE 'LREGISTRY' ENTERED AT 15:43:45 ON 07 MAY 2004
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LREGISTRY IS A STATIC LEARNING FILE

=> fil reg

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 5 MAY 2004 HIGHEST RN 680179-46-8
DICTIONARY FILE UPDATES: 5 MAY 2004 HIGHEST RN 680179-46-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 15:43:56 ON 07 MAY 2004
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FILE RELOADED ON OCTOBER 20, 2002
FILE LAST UPDATED ON MARCH 30,2004

FILE COVERS 1771 TO 2003.
*** FILE CONTAINS 8,932,479 SUBSTANCES ***

>>> PLEASE NOTE: Reaction data and substance data are stored in
separate documents and can not be searched together in one
query.
Reaction data for BEILSTEIN compounds may be displayed
immediately with the display codes PRE (preparations) and REA
(reactions). A substance answer set retrieved after the search
for a chemical name, a molecular formula or a structure search
for example can be restricted to compounds with available
reaction information by concatenation with PRE/FA, REA/FA or
more general with RX/FA. The BEILSTEIN Registry Number (BRN)
is the link between a BEILSTEIN compound and belonging reactions.
For more detailed reaction searches BRNs can be selected from
substance answer sets and searched in the next step as reaction
partner BRNs - Reactant (RX.RBRN) or Product BRN (RX.PBRN).

After a search for reaction details substance documents associated with reactants or products may be retrieved by searching RX.PBRNs or RX.RBRNs as BRNs. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

```
**********************************************************************
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST.                *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE   *
* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE          *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.                        *
* FOR PRICE INFORMATION SEE HELP COST                                *
**********************************************************************
```

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 15:44:00 ON 07 MAY 2004
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FILE COVERS 1907 - 7 May 2004 VOL 140 ISS 20
FILE LAST UPDATED: 6 May 2004 (20040506/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> fil casreact

FILE 'CASREACT' ENTERED AT 15:44:09 ON 07 MAY 2004
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FILE CONTENT:1840 - 2 May 2004 VOL 140 ISS 18

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

Structure search limits have been raised. See HELP SLIMIT for the new, higher limits.

=> fil uspatfull

FILE 'USPATFULL' ENTERED AT 15:44:14 ON 07 MAY 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 May 2004 (20040506/PD)
FILE LAST UPDATED: 6 May 2004 (20040506/ED)
HIGHEST GRANTED PATENT NUMBER: US6732373
HIGHEST APPLICATION PUBLICATION NUMBER: US2004088770
CA INDEXING IS CURRENT THROUGH 6 May 2004 (20040506/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 May 2004 (20040506/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> fil uspat2

FILE 'USPAT2' ENTERED AT 15:44:20 ON 07 MAY 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 2001 TO PUBLICATION DATE: 6 May 2004 (20040506/PD)
FILE LAST UPDATED: 6 May 2004 (20040506/ED)
HIGHEST GRANTED PATENT NUMBER: US6732373
HIGHEST APPLICATION PUBLICATION NUMBER: US2004088054
CA INDEXING IS CURRENT THROUGH 6 May 2004 (20040506/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 May 2004 (20040506/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2003

USPAT2 is a companion file to USPATFULL. USPAT2 contains full text of the latest US publications, starting in 2001, for the inventions

covered in USPATFULL. USPATFULL contains full text of the original published US patents from 1971 to date and the original applications from 2001. In addition, a USPATFULL record for an invention contains a complete list of publications that may be searched in standard search fields, e.g., /PN, /PK, etc.

USPATFULL and USPAT2 can be accessed and searched together through the new cluster USPATALL. Type FILE USPATALL to enter this cluster.

Use USPATALL when searching terms such as patent assignees, classifications, or claims, that may potentially change from the earliest to the latest publication.

=> fil toxcenter

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FILE COVERS 1907 TO 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

TOXCENTER has been enhanced with new files segments and search fields. See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

=> FIL STNGUIDE

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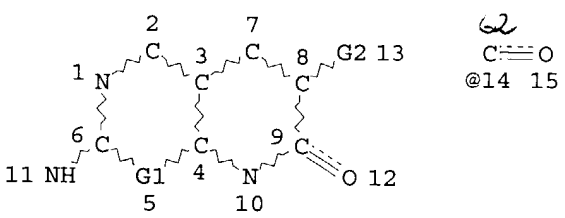
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 30, 2004 (20040430/UP).

=> d que l5
L4 STR



VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

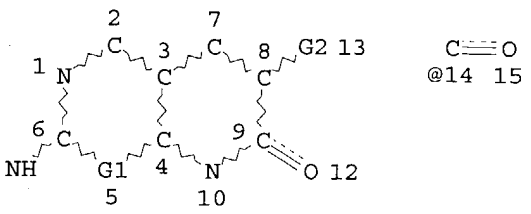
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L5 321 SEA FILE=REGISTRY SSS FUL L4

321 hits in Registry

=> d que l8
L4 STR



VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L5 321 SEA FILE=REGISTRY SSS FUL L4
L8 ANALYZE PLU=ON L5 1- LC : 6 TERMS

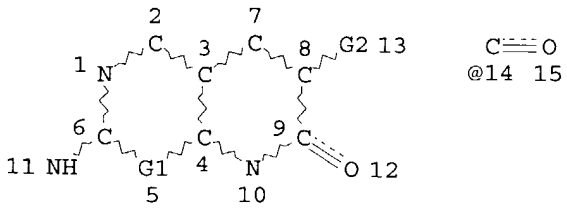
=> d l8
L8 ANALYZE L5 1- LC : 6 TERMS

TERM #	# OCC	# DOC	% DOC	LC
1	321	321	100.00	CA
2	321	321	100.00	CAPLUS
3	313	313	97.51	USPATFULL
4	203	203	63.24	USPAT2
5	102	102	31.78	TOXCENTER
6	7	7	2.18	CASREACT

********* END OF L8 ***

Hit registry numbers appear in these files

=> d que l9
L4 STR



VAR G1=N/C
VAR G2=O/N/S/14

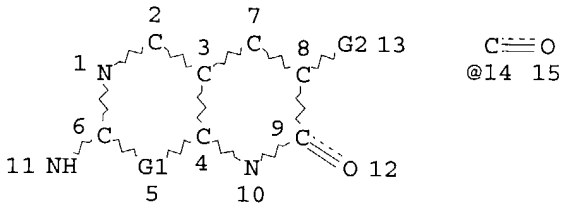
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L9 1 SEA FILE=BEILSTEIN SSS FUL L4

search structure in Beilstein -> 1 hit

=> d que l7
L4 STR

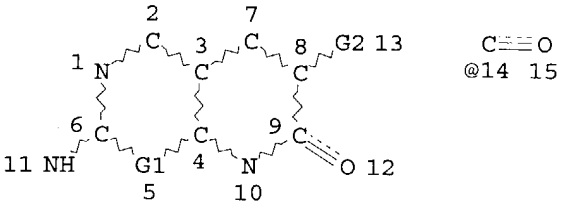


VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L5 321 SEA FILE=REGISTRY SSS FUL L4
L7 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

=> d que l14
L4 STR



VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

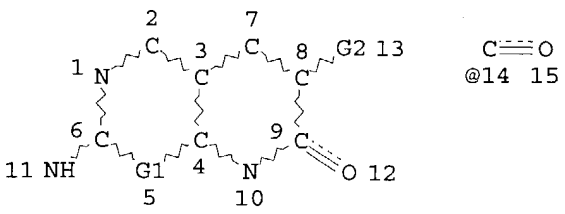
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

```
L5          321 SEA FILE=REGISTRY SSS FUL L4
L13           7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 AND CASREACT/LC
L14           2 SEA FILE=CASREACT ABB=ON  PLU=ON  L13
```

→ RN that appear in CASREACT

```
=> d que l15
L4                STR
```

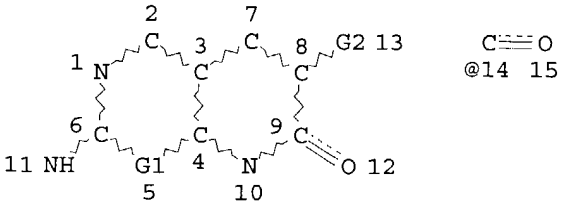



```
VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L5          321 SEA FILE=REGISTRY SSS FUL L4
L10         313 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 AND USPATFULL/LC
L15           3 SEA FILE=USPATFULL ABB=ON  PLU=ON  L10


=> d que l16
L4                STR
```



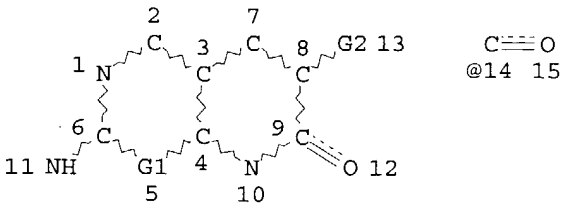

```
VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L5          321 SEA FILE=REGISTRY SSS FUL L4
L11         203 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 AND USPAT2/LC
L16           1 SEA FILE=USPAT2 ABB=ON  PLU=ON  L11


=> d que l17
```

L4 STR



VAR G1=N/C
VAR G2=O/N/S/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L5 321 SEA FILE=REGISTRY SSS FUL L4
L12 102 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND TOXCENTER/LC
L17 2 SEA FILE=TOXCENTER ABB=ON PLU=ON L12

=> dup rem l7 l14 l15 l16 l17

FILE 'HCAPLUS' ENTERED AT 15:46:06 ON 07 MAY 2004
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FILE 'USPATFULL' ENTERED AT 15:46:06 ON 07 MAY 2004
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FILE 'USPAT2' ENTERED AT 15:46:06 ON 07 MAY 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXCENTER' ENTERED AT 15:46:06 ON 07 MAY 2004
COPYRIGHT (C) 2004 ACS
PROCESSING COMPLETED FOR L7
PROCESSING COMPLETED FOR L14
PROCESSING COMPLETED FOR L15
PROCESSING COMPLETED FOR L16
PROCESSING COMPLETED FOR L17
L18 9 DUP REM L7 L14 L15 L16 L17 (5 DUPLICATES REMOVED)
ANSWERS '1-6' FROM FILE HCAPLUS
ANSWERS '7-9' FROM FILE USPATFULL

remove duplicate records

=> d l18 iall fhitstr

L18 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:591180 HCAPLUS
DOCUMENT NUMBER: 139:149646
ENTRY DATE: Entered STN: 01 Aug 2003

* only the first hit structure is shown *

TITLE: Preparation of pyrido[2,3-d]pyrimidin-7-ones as cdk4 inhibitors

INVENTOR(S): Barvian, Mark Robert; Booth, Richard John; Quin, John, III; Repine, Joseph Thomas; Sheehan, Derek James; Toogood, Peter Laurence; Vanderwel, Scott Norman; Zhou, Hairong

PATENT ASSIGNEE(S): Warner-Lambert Company Llc, USA

SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:
MAIN: C07D471-04
SECONDARY: A61K031-519; A61P035-00; A61P031-12; A61P025-00; C07F009-6561; A61K031-675

CLASSIFICATION: 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062236	A1	20030731	WO 2003-IB59	20030110
WO 2003062236	C1	20031224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003149001	A1	20030807	US 2003-345778	20030116

PRIORITY APPLN. INFO.: US 2002-350877P P 20020122

GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
Title compds. I [wherein X1, X2, X3 = independently H, halo, alkyl, (un)substituted amino, acyl, carbamoyl, sulfamoyl, etc.; R1 = independently H, halo, alkyl, haloalkyl, hydroxyalkyl, cycloalkyl; R2, R4 = independently H, halo, (un)substituted alkyl, amino, acyl, sulfamoyl, carbamoyl, etc.; R3 = H, aryl, alkyl, alkoxy, cycloalkyl, heterocyclyl; R1CCR2 = 3-7 carbocyclic or heterocyclic ring; and their pharmaceutically acceptable salts, esters, amides, or prodrugs] were prepared as cyclin-dependent kinases 4 (cdk4) inhibitors. Examples include 135 invention compds., three biol. assays, one tablet formulation, and a parenteral solution For example, compound II·2.2HCl was prepared by the solventless reaction of 6-bromo-8-cyclopentyl-2-methylsulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one with 4-(6-aminopyridin-3-yl)piperazine-1-carboxylic acid tert-Bu ester at 1200C for 1 h, followed by deprotection in the presence of gaseous HCl. II selectively inhibited cdk4 over cdk2 with IC50 values of 0.016 μM and 6.052 μM, resp. Thus, I and their formulations are useful for treating cell proliferative disorders, such as cancer,

atherosclerosis, and restenosis (no data).

SUPPL. TERM: pyridopyrimidinone prepn cdk4 inhibitor cancer atherosclerosis restenosis formulation

INDEX TERM: Carcinoma
(adenocarcinoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Lip
(cancer; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Bladder, neoplasm
(carcinoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Nervous system, neoplasm
(central; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Uterus, neoplasm
(cervix; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Intestine, neoplasm
(colon; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Intestine, neoplasm
(colorectal; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Nervous system, disease
(degeneration; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Kidney, disease
(diabetic nephropathy; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Uterus, disease
(endometriosis; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Thyroid gland, neoplasm
(follicular cell carcinoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Neuroglia, neoplasm
(glioblastoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Kidney, disease
(glomerulonephritis; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Liver, neoplasm
(hepatoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Diabetes mellitus
(insulin-dependent; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Skin, neoplasm
(keratoacanthoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative

disorders)

INDEX TERM: Carcinoma
(large cell; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Leukemia
(myelogenous; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Nerve, neoplasm
(neuroblastoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Cytoprotective agents
(neuroprotective; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Thyroid gland, neoplasm
(papillary carcinoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Drug delivery systems
(parenterals; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Adenoma
Alzheimer's disease
Anti-Alzheimer's agents
Anti-inflammatory agents
Antirheumatic agents
Antitumor agents
Antiviral agents
Atherosclerosis
Biliary tract, neoplasm
Bone, neoplasm
Brain, neoplasm
DNA viruses
Drug delivery systems
Esophagus, neoplasm
Fungicides
Herpesviridae
Hodgkin's disease
Human
Human immunodeficiency virus
Inflammation
Leukemia
Lupus erythematosus
Lymphoma
Mammary gland, neoplasm
Melanoma
Mouth, neoplasm
Multiple sclerosis
Mycosis
Ovary, neoplasm
Pancreas, neoplasm
Pharynx, neoplasm
Prostate gland, neoplasm
Psoriasis
RNA viruses
Rheumatoid arthritis
Sarcoma

Testis, neoplasm
Thyroid gland, neoplasm
Tongue, neoplasm
(preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Drug delivery systems
(prodrugs; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Transplant and Transplantation
(rejection; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Kidney, neoplasm
(renal cell carcinoma; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Artery, disease
(restenosis; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Intestine, neoplasm
(small and large; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Blood vessel
(smooth muscle, proliferation; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Carcinoma
(squamous cell; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Artery, disease
(stenosis; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Drug delivery systems
(tablets; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: Infection
(viral; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 571188-57-3P, 4-[6-[(6-Bromo-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester
571188-62-0P, 4-[6-[(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester
571188-66-4P, 2-[[5-(4-tert-Butoxycarbonylpiperazin-1-yl)pyridin-2-yl]amino]-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester
571188-73-3P, 4-[6-[(6-tert-Butoxycarbonylamino-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571188-82-4P 571188-85-7P, 4-[6-[(8-Cyclopentyl-6-fluoro-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571188-87-9P, 4-[6-[(8-Cyclopentyl-6-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571188-92-6P, 4-[6-[(6-Benzyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid

tert-butyl ester 571189-00-9P, 4-[6-[(6-Acetoxymethyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester **571189-03-2P**, 2-[[5-(4-tert-Butoxycarbonylpiperazin-1-yl)pyridin-2-yl]amino]-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester **571189-08-7P**, 4-[6-[(6-Acetyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-10-1P, 4-[6-[[8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]-piperazine-1-carboxylic acid tert-butyl ester **571189-28-1P**, 4-[6-[[8-Cyclopentyl-6-(2-ethoxyethoxy)-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]-piperazine-1-carboxylic acid tert-butyl ester 571189-32-7P, 2-[[5-[Bis(2-methoxyethyl)amino]pyridin-2-yl]amino]-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-37-2P 571189-39-4P, 4-[6-[(8-Cyclohexyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-41-8P, 4-[6-[(8-Cyclopropyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-52-1P, [1-[6-[[8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]pyrrolidin-3-yl]carbamic acid tert-butyl ester 571189-55-4P 571189-56-5P **571189-57-6P** 571189-58-7P, 4-[6-(6-Bromo-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]azepane-1-carboxylic acid tert-butyl ester 571189-61-2P, 4-[6-[[8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]-[1,4]diazepane-1-carboxylic acid tert-butyl ester 571189-65-6P, 4-[6-[(8-Cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-69-0P, 4-[6-[(6-Bromo-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]-2,2-dimethylpiperazine-1-carboxylic acid tert-butyl ester 571189-71-4P, 4-[6-[[8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]-2,2-dimethylpiperazine-1-carboxylic acid tert-butyl ester 571189-74-7P, 4-[6-[(6-Bromo-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]-2,6-dimethylpiperazine-1-carboxylic acid tert-butyl ester 571189-79-2P, 6-Bromo-8-cyclopentyl-5-methyl-2-[[5-(morpholin-4-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571189-83-8P 571189-91-8P, 4-[6-[[8-Cyclopentyl-6-(2-methoxyethoxymethyl)-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571190-10-8P, 8-Cyclopentyl-2-[[5-(2,6-dimethylmorpholin-4-yl)pyridin-2-yl]amino]-6-(1-ethoxyvinyl)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one
ROLE: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or

reagent); USES (Uses)
(cdk4 inhibitor; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 571188-56-2P, 8-Cyclopentyl-2-(pyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571188-60-8P 571188-64-2P **571188-68-6P**, 8-Cyclopentyl-7-oxo-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester dihydrochloride **571188-74-4P**, 6-Amino-8-cyclopentyl-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one dihydrochloride 571188-75-5P 571188-76-6P, 6-Bromo-8-cyclohexyl-2-(pyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571188-80-2P 571188-86-8P, 8-Cyclopentyl-6-fluoro-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one dihydrochloride 571188-89-1P **571188-90-4P**, 4-[6-[(8-Cyclopentyl-6-isobutoxy-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester **571188-91-5P**, 8-Cyclopentyl-6-isobutoxy-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one dihydrochloride 571188-94-8P 571189-01-0P **571189-07-6P** **571189-09-8P** **571189-11-2P** 571189-12-3P, 6-Bromo-8-cyclopentyl-5-methyl-2-(pyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571189-14-5P, 6-Bromo-8-cyclopentyl-2-(pyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571189-22-5P, 4-[6-[(8-Cyclopentyl-6-iodo-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-24-7P, 8-Cyclopentyl-6-iodo-5-methyl-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571189-25-8P **571189-31-6P** **571189-34-9P**, 6-Acetyl-2-[5-[bis(2-methoxyethyl)amino]pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-35-0P, 4-[6-(8-Isopropyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-36-1P 571189-38-3P, 8-Cyclopentyl-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one dihydrochloride 571189-40-7P 571189-42-9P 571189-44-1P, 2-(6-Aminopyridin-2-ylamino)-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-48-5P, 6-Bromo-8-cyclopentyl-5-methyl-2-[[5-(4-methylpiperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571189-50-9P, 8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-2-[[5-(4-methylpiperazin-1-yl)-pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571189-51-0P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[[5-(4-methylpiperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571189-54-3P**, 6-Acetyl-2-[[5-(3-aminopyrrolidin-1-yl)pyridin-2-yl]amino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-60-1P **571189-62-3P** **571189-63-4P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-(pyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571189-66-7P 571189-70-3P **571189-72-5P** 571189-75-8P 571189-76-9P, 4-[6-[[8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]-2,6-dimethylpiperazine-1-carboxylic acid tert-butyl ester

571189-77-0P 571189-80-5P, 8-Cyclopentyl-6-(1-ethoxyvinyl)-5-methyl-2-[[5-(morpholin-4-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571189-81-6P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[(5-morpholin-4-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571189-82-7P **571189-84-9P** 571189-86-1P, 4-[6-[[8-Cyclopentyl-6-(2-ethoxyethyl)-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl]amino]pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-88-3P 571189-92-9P 571189-94-1P, 8-Cyclopentyl-6-ethoxymethyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-96-3P, 4-[6-(8-Cyclopentyl-6-ethoxymethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571189-97-4P, 8-Cyclopentyl-6-ethoxymethyl-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-00-6P, 4-[6-(8-Cyclopentyl-6-methoxymethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]piperazine-1-carboxylic acid tert-butyl ester 571190-03-9P, 6-Bromo-8-cyclopentyl-2-[[5-(2,6-dimethylmorpholin-4-yl)pyridin-2-yl]amino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-04-0P 571190-06-2P, 8-Cyclopentyl-6-ethoxymethyl-2-[5-(morpholin-4-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-09-5P **571190-11-9P**, 6-Acetyl-8-cyclopentyl-2-[5-(2,6-dimethylmorpholin-4-yl)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-16-4P **571190-17-5P**, 6-Acetyl-8-cyclopentyl-2-[[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-yl]amino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-18-6P**, 6-Acetyl-8-cyclopentyl-2-[[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-yl]amino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-19-7P **571190-20-0P** 571190-22-2P, 8-Cyclopentyl-5-methyl-2-[[(5-piperazin-4-ylpyridin-2-yl)]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-23-3P, 6-Bromo-8-cyclopentyl-2-[[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-yl]amino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-24-4P, 6-Bromo-8-cyclopentyl-2-[[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-yl]amino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-25-5P, 8-Cyclopentyl-6-(2-ethoxyethyl)-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-26-6P, 8-Cyclopentyl-6-(2-methoxyethoxymethyl)-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-27-7P, 8-Cyclopentyl-6-methoxymethyl-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-28-8P**, 8-Cyclopentyl-5-methyl-2-[(5-piperazin-1-ylpyridin-2-yl)amino]-6-propionyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-29-9P**, 6-Acetyl-8-cyclopentyl-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-30-2P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[[5-(piperazin-1-yl)pyridin-2-yl]amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-31-3P, 6-Bromo-8-cyclopentyl-2-[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-32-4P, 6-Bromo-8-cyclopentyl-2-[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-34-6P, 6-Bromo-8-cyclopentyl-2-[5-(4-methylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-

d]pyrimidin-7-one 571190-35-7P, 2-[5-(3-Aminopyrrolidin-1-yl)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-36-8P, 6-Bromo-8-cyclopentyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-37-9P, 6-Bromo-8-cyclopentyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-38-0P, 2-[5-[3-(1-Amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-39-1P, 1-[6-(6-Bromo-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid 571190-40-4P, 6-Bromo-8-cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-41-5P**, 6-Acetyl-8-cyclopentyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-42-6P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-43-7P**, 6-Acetyl-2-[5-[3-(1-amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-44-8P**, 1-[6-(6-Acetyl-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid **571190-45-9P**, 6-Acetyl-8-cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-46-0P, 8-Cyclopentyl-2-[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-ylamino]-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-47-1P, 8-Cyclopentyl-2-[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-ylamino]-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-49-3P, 8-Cyclopentyl-6-ethyl-2-[5-(4-methylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-50-6P, 2-[5-(3-Aminopyrrolidin-1-yl)pyridin-2-ylamino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-52-8P, 8-Cyclopentyl-6-ethyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-54-0P, 8-Cyclopentyl-6-ethyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-55-1P, 2-[5-[3-(1-Amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-57-3P, 1-[6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid 571190-58-4P, 8-Cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-59-5P, 6-Benzyl-8-cyclopentyl-2-[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-60-8P, 6-Benzyl-8-cyclopentyl-2-[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-61-9P, 6-Benzyl-8-cyclopentyl-2-[5-(4-methylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-62-0P, 2-[5-(3-Aminopyrrolidin-1-yl)pyridin-2-ylamino]-6-benzyl-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-63-1P, 6-Benzyl-8-cyclopentyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-64-2P, 6-Benzyl-8-cyclopentyl-2-[(5-pyrrolidin-1-ylpyridin-2-

yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-65-3P, 2-[5-[3-(1-Amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-6-benzyl-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-66-4P, 1-[6-(6-Benzyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid 571190-68-6P, 6-Benzyl-8-cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-69-7P, 8-Cyclopentyl-2-[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-ylamino]-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-70-0P, 8-Cyclopentyl-2-[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-ylamino]-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-71-1P, 8-Cyclopentyl-6-hydroxymethyl-2-[5-(4-methylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-72-2P, 2-[5-(3-Aminopyrrolidin-1-yl)pyridin-2-ylamino]-8-cyclopentyl-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-73-3P, 8-Cyclopentyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-74-4P, 8-Cyclopentyl-6-hydroxymethyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-75-5P, 2-[5-[3-(1-Amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-8-cyclopentyl-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-76-6P, 1-[6-(8-Cyclopentyl-6-hydroxymethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid 571190-78-8P, 8-Cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-6-hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-79-9P**, 6-Amino-8-cyclopentyl-2-[5-(3,5-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-80-2P**, 6-Amino-8-cyclopentyl-2-[5-(3,3-dimethylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-81-3P**, 6-Amino-8-cyclopentyl-2-[5-(4-methylpiperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-82-4P**, 6-Amino-2-[5-(3-aminopyrrolidin-1-yl)pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-83-5P**, 6-Amino-8-cyclopentyl-2-[5-(3-ethylaminopyrrolidin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-84-6P**, 6-Amino-8-cyclopentyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571190-85-7P**, 6-Amino-2-[5-[3-(1-amino-1-methylethyl)pyrrolidin-1-yl]pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571190-86-8P**, 1-[6-(6-Amino-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]pyrrolidine-2-carboxylic acid **571190-87-9P**, 6-Amino-8-cyclopentyl-2-[5-(4-diethylaminobutylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-88-0P 571190-90-4P, 6-Bromo-8-cyclopentyl-2-[(5-morpholin-4-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-91-5P, 6-Bromo-8-cyclopentyl-2-(5-diethylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571190-92-6P, 2-[5-[Bis(2-hydroxyethyl)amino]pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-93-7P, 2-[5-[Bis(2-methoxyethyl)amino]pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-94-8P,

2-[[5-(2-Aminoethylamino)pyridin-2-yl]amino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-95-9P, 6-Bromo-8-cyclopentyl-2-(5-dimethylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571190-96-0P, N-[6-(6-Bromo-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]-N-methylacetamide 571190-97-1P, 6-Bromo-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-98-2P, 6-Bromo-8-cyclopentyl-2-[5-(2-methoxyethoxymethyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571190-99-3P, 6-Bromo-8-cyclopentyl-2-[5-(2-diethylaminoethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-00-9P, 6-Bromo-8-cyclopentyl-2-[6-methyl-5-(piperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-02-1P, 6-Bromo-8-cyclopentyl-2-(5-diethylaminopyridin-2-ylamino)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-03-2P, 2-[5-[Bis(2-hydroxyethyl)amino]pyridin-2-ylamino]-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-04-3P, 2-[5-(2-Aminoethylamino)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-05-4P, 6-Bromo-8-cyclopentyl-2-(5-dimethylaminopyridin-2-ylamino)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-06-5P, N-[6-(6-Bromo-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]-N-methylacetamide 571191-07-6P, 6-Bromo-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-08-7P, 6-Bromo-8-cyclopentyl-2-[5-(2-methoxyethoxymethyl)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-09-8P, 6-Bromo-8-cyclopentyl-2-[5-(2-diethylaminoethoxy)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-10-1P, 6-Bromo-8-cyclopentyl-5-methyl-2-[5-(pyrrolidin-1-yl)pyridin-2-ylamino]8H-pyrido[2,3-d]pyrimidin-7-one 571191-12-3P, 6-Bromo-8-cyclopentyl-5-methyl-2-[6-methyl-5-(piperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-13-4P**, 6-Acetyl-8-cyclopentyl-2-(5-diethylaminopyridin-2-ylamino)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-14-5P** , 6-Acetyl-2-[5-[bis(2-hydroxyethyl)amino]pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-15-6P**, 6-Acetyl-2-[5-(2-aminoethylamino)pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-16-7P**, 6-Acetyl-8-cyclopentyl-2-(5-dimethylaminopyridin-2-ylamino)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-17-8P**, N-[6-(6-Acetyl-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]-N-methylacetamide **571191-18-9P** , 6-Acetyl-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-19-0P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-methoxyethoxymethyl)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-20-3P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-diethylaminoethoxy)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-21-4P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[6-methyl-5-(piperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-22-5P 571191-23-6P**,

6-Acetyl-8-cyclopentyl-2-[5-(morpholin-4-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-24-7P**, 6-Acetyl-8-cyclopentyl-2-(5-diethylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-25-8P**, 6-Acetyl-2-[5-[bis(2-hydroxyethyl)amino]pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-26-9P**, 6-Acetyl-2-[5-[bis(2-methoxyethyl)amino]pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-27-0P**, 6-Acetyl-2-[5-(2-aminoethylamino)pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-28-1P**, 6-Acetyl-8-cyclopentyl-2-(5-dimethylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-29-2P**, N-[6-(6-Acetyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]-N-methylacetamide **571191-30-5P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-31-6P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-methoxyethoxymethyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-32-7P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-diethylaminoethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-33-8P**, 6-Acetyl-8-cyclopentyl-2-[(5-pyrrolidin-1-ylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-34-9P**, 6-Acetyl-8-cyclopentyl-2-[6-methyl-5-(piperazin-1-yl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-35-0P, 6-Bromo-8-cyclopentyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-36-1P, 2-[(5-Azetidin-1-ylpyridin-2-yl)amino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-37-2P, 2-[(5-Azepan-1-ylpyridin-2-yl)amino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-38-3P, N-[6-(6-Bromo-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide 571191-39-4P, 6-Bromo-8-cyclopentyl-2-[(5-phenylaminopyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-40-7P, 6-Bromo-8-cyclopentyl-2-[5-(4-fluorobenzylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-41-8P, N-[6-(6-Bromo-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide 571191-42-9P, 6-Bromo-8-cyclopentyl-2-[(5-methylsulfonylpyridin-2-yl)amino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-43-0P, 6-Bromo-8-cyclopentyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-44-1P**, 6-Amino-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-45-2P**, 6-Amino-8-cyclopentyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-46-3P**, 6-Amino-2-[(5-azetidin-1-ylpyridin-2-yl)amino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-47-4P**, 6-Amino-2-[(5-azepan-1-ylpyridin-2-yl)amino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-48-5P**, N-[6-(6-Amino-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide **571191-49-6P**, 6-Amino-8-cyclopentyl-2-(5-phenylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-50-9P**, 6-Amino-8-cyclopentyl-2-[5-(4-

fluorobenzylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571191-51-0P**, N-[6-(6-Amino-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide **571191-52-1P**, 6-Amino-8-cyclopentyl-2-(5-methylsulfonylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-53-2P**, 6-Amino-8-cyclopentyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-54-3P**, 6-Acetyl-8-cyclopentyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-55-4P**, 6-Acetyl-2-[(5-azetidin-1-ylpyridin-2-yl)amino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-56-5P**, 6-Acetyl-2-[(5-azepan-1-ylpyridin-2-yl)amino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-57-6P**, N-[6-(6-Acetyl-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide **571191-58-7P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-(5-phenylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571191-59-8P**, 6-Acetyl-8-cyclopentyl-2-[5-(4-fluorobenzylamino)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-60-1P**, N-[6-(6-Acetyl-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide **571191-61-2P**, 6-Acetyl-8-cyclopentyl-2-[5-(methylsulfonyl)pyridin-2-ylamino]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571191-62-3P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-63-4P, 6-Benzyl-8-cyclopentyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-64-5P, 6-Benzyl-8-cyclopentyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-65-6P, 2-[(5-Azetidin-1-ylpyridin-2-yl)amino]-6-benzyl-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-66-7P, 2-[(5-Azepan-1-ylpyridin-2-yl)amino]-6-benzyl-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-67-8P, N-[6-(6-Benzyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide 571191-68-9P, 6-Benzyl-8-cyclopentyl-2-(5-phenylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-69-0P, 6-Benzyl-8-cyclopentyl-2-[5-(4-fluorobenzylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-70-3P, N-[6-(6-Benzyl-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide 571191-71-4P, 6-Benzyl-8-cyclopentyl-2-(5-methylsulfonylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-72-5P, 6-Benzyl-8-cyclopentyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-73-6P, 8-Cyclopentyl-6-hydroxymethyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-74-7P, 8-Cyclopentyl-6-hydroxymethyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-75-8P 571191-77-0P 571191-79-2P, N-[6-(8-Cyclopentyl-6-hydroxymethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide 571191-81-6P 571191-83-8P, 8-Cyclopentyl-2-[5-(4-fluorobenzylamino)pyridin-2-ylamino]-6-

hydroxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-84-9P, N-[6-(8-Cyclopentyl-6-hydroxymethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide 571191-86-1P, 8-Cyclopentyl-6-hydroxymethyl-2-(5-methylsulfonylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-87-2P, 8-Cyclopentyl-6-hydroxymethyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571191-89-4P, 8-Cyclopentyl-6-ethyl-2-[5-(2-methoxyethoxy)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-91-8P, 8-Cyclopentyl-6-ethyl-2-[5-(2-methoxyethylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571191-93-0P, 2-[(5-Azetidin-1-ylpyridin-2-yl)amino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-95-2P, 2-[(5-Azepan-1-ylpyridin-2-yl)amino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571191-97-4P, N-[6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]acetamide 571191-98-5P, 8-Cyclopentyl-6-ethyl-2-(5-phenylaminopyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571192-00-2P, 8-Cyclopentyl-6-ethyl-2-[5-(4-fluorobenzylamino)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-01-3P, N-[6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]methanesulfonamide 571192-02-4P, 8-Cyclopentyl-6-ethyl-2-(5-methylsulfonylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571192-03-5P, 8-Cyclopentyl-6-ethyl-2-(5-phenylpyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one 571192-04-6P 571192-05-7P 571192-06-8P, 2-[5-(3-Aminopyrrolidine-1-carbonyl)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-07-9P, 6-Bromo-8-cyclopentyl-2-[5-(morpholine-4-carbonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-08-0P 571192-09-1P 571192-10-4P, 2-[5-(3-Aminopyrrolidine-1-carbonyl)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-11-5P, 6-Bromo-8-cyclopentyl-5-methyl-2-[5-(morpholine-4-carbonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571192-12-6P 571192-13-7P**
ROLE: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cdk4 inhibitor; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: **571192-14-8P**, 6-Acetyl-2-[5-(3-aminopyrrolidine-1-carbonyl)pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571192-15-9P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[5-(morpholine-4-carbonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-16-0P 571192-17-1P 571192-18-2P, 2-[5-(3-Aminopyrrolidine-1-carbonyl)pyridin-2-ylamino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-19-3P, 8-Cyclopentyl-6-ethyl-2-[5-(morpholine-4-carbonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-20-6P 571192-21-7P, 6-Bromo-8-cyclopentyl-2-[5-(morpholine-4-sulfonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-22-8P, 2-[5-(3-Aminopyrrolidine-1-sulfonyl)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-23-9P 571192-24-0P

571192-25-1P, 6-Bromo-8-cyclopentyl-5-methyl-2-[5-(morpholine-4-sulfonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-26-2P, 2-[5-(3-Aminopyrrolidine-1-sulfonyl)pyridin-2-ylamino]-6-bromo-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-27-3P 571192-28-4P 571192-29-5P, 8-Cyclopentyl-6-ethyl-2-[5-(morpholine-4-sulfonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-30-8P, 2-[5-(3-Aminopyrrolidine-1-sulfonyl)pyridin-2-ylamino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-31-9P **571192-32-0P 571192-33-1P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-[5-(morpholine-4-sulfonyl)pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one **571192-34-2P**, 6-Acetyl-2-[5-(3-aminopyrrolidine-1-sulfonyl)pyridin-2-ylamino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571192-35-3P** **571192-36-4P**, 6-Acetyl-8-cyclopentyl-5-methyl-2-([1,6]naphthyridin-2-ylamino)-8H-pyrido[2,3-d]pyrimidin-7-one **571192-37-5P** 571192-38-6P, 8-Cyclopentyl-6-hydroxymethyl-5-methyl-2-[(5-(piperazin-1-yl)pyridin-2-ylamino)]-8H-pyrido[2,3-d]pyrimidin-7-one **571192-39-7P**, 6-Acetyl-2-[(3-chloro-5-(piperazin-1-yl)pyridin-2-yl)amino]-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one **571192-40-0P**, 4-[6-Acetyl-5-methyl-7-oxo-2-(pyridin-2-ylamino)-7H-pyrido[2,3-d]pyrimidin-8-yl]cyclohexanecarboxylic acid **571192-41-1P**, 4-[6-Acetyl-2-(5-dimethylaminopyridin-2-ylamino)-5-methyl-7-oxo-7H-pyrido[2,3-d]pyrimidin-8-yl]cyclohexanecarboxylic acid 571192-42-2P, 6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)-3-piperazin-1-ylpyridine-2-carboxylic acid 571192-43-3P, 2-[6-Acetyl-5-(piperazin-1-yl)pyridin-2-ylamino]-8-cyclopentyl-6-ethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-45-5P, 3-[2-[[6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]oxy]ethoxy]propionic acid 571192-46-6P, [[6-(8-Cyclopentyl-6-ethyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-ylamino)pyridin-3-yl]oxy]acetic acid 571192-47-7P, 8-Cyclopentyl-2-[5-[2-[2-(5-methylpyridin-2-yl)ethoxy]ethoxy]pyridin-2-ylamino]-8H-pyrido[2,3-d]pyrimidin-7-one 571192-48-8P, 2-[5-(3-Benzylsulfonylpropoxy)pyridin-2-ylamino]-8-cyclopentyl-8H-pyrido[2,3-d]pyrimidin-7-one 571192-49-9P 571192-50-2P **571192-51-3P**, 6-Acetyl-5-methyl-2-(5-methylpyridin-2-ylamino)-8-piperidin-4-yl-8H-pyrido[2,3-d]pyrimidin-7-one **571192-52-4P**, 6-Acetyl-2-[5-(3,4-dihydroxypyrrolidin-1-yl)pyridin-2-ylamino]-8-methoxymethyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one
ROLE: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cdk4 inhibitor; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 125149-26-0 141349-86-2 147014-97-9, Cyclin-dependent kinase 4
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 94924-94-4P 211245-81-7P, 8-Cyclopropyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 211245-82-8P, 8-Cyclopropyl-2-methylsulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 444146-17-2P, 6'-Nitro-3,4,5,6-tetrahydro-2H-[1,3']bipyridinyl 491855-89-1P, 4-(6-Nitropyridin-3-yl)morpholine 571188-58-4P, 6-Bromo-8-cyclopentyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-59-5P, 4-(6-Aminopyridin-3-yl)piperazine-1-carboxylic acid tert-butyl ester 571188-67-5P, 8-Cyclopentyl-2-methanesulfinyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester 571188-69-7P, (8-Cyclopentyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-6-yl)carbamic acid tert-butyl ester 571188-72-2P, [8-Cyclopentyl-2-(methanesulfinyl)-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-6-yl]carbamic acid tert-butyl ester 571188-77-7P, 6-Bromo-8-cyclohexyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-78-8P, 6-Bromo-8-cyclopentyl-2-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-81-3P, 6-Bromo-8-cyclopentyl-2-methanesulfinyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-88-0P, 8-Cyclopentyl-2-methanesulfinyl-6-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-96-0P, 6-Bromomethyl-8-cyclopentyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-97-1P, 8-Cyclopentyl-6-methyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-98-2P, Acetic acid 8-cyclopentyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-6-ylmethyl ester 571188-99-3P 571189-05-4P, 8-Cyclopentyl-5-methyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester 571189-06-5P, 8-Cyclopentyl-2-methanesulfinyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester 571189-15-6P, 8-Cyclopentyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester 571189-16-7P, 4-(6-Nitropyridin-3-yl)piperazine-1-carboxylic acid tert-butyl ester 571189-17-8P, 6-Bromo-8-cyclohexyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-18-9P, 8-Cyclopentyl-6-iodo-5-methyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-20-3P, 8-Cyclopentyl-6-iodo-2-methanesulfinyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-26-9P, 8-Cyclopentyl-6-ethyl-2-methanesulfonyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-30-5P, 8-Cyclopentyl-6-(2-ethoxyethoxy)-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-46-3P, 8-Cyclopentyl-6-ethyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-47-4P, 8-Cyclopentyl-6-(2-ethoxyethoxy)-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one **571189-64-5P**, 6-Acetyl-2-amino-8-cyclopentyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-67-8P, 2,2-Dimethyl-4-(6-nitropyridin-3-yl)piperazine-1-carboxylic acid tert-butyl ester 571189-68-9P, 4-(6-Aminopyridin-3-yl)-2,2-dimethylpiperazine-1-carboxylic acid tert-butyl ester 571189-73-6P, 4-(6-Aminopyridin-3-yl)-2,6-dimethylpiperazine-1-carboxylic acid tert-butyl ester 571189-78-1P, 5-Morpholin-4-ylpyridin-2-ylamine 571189-85-0P, 8-Cyclopentyl-6-(2-ethoxyethyl)-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-89-4P, 8-Cyclopentyl-6-(2-methoxyethoxymethyl)-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-90-7P, 8-Cyclopentyl-2-methanesulfinyl-6-(2-methoxyethoxymethyl)-8H-

pyrido[2,3-d]pyrimidin-7-one 571189-95-2P, 8-Cyclopentyl-6-ethoxymethyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-98-5P, 8-Cyclopentyl-6-methoxymethyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-99-6P, 8-Cyclopentyl-2-methanesulfinyl-6-methoxymethyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-01-7P, 2,6-Dimethyl-4-(6-nitropyridin-3-yl)morpholine 571190-02-8P, 5-(2,6-Dimethylmorpholin-4-yl)pyridin-2-ylamine 571190-07-3P, (8-Cyclopentyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-6-ylmethyl)carbamic acid benzyl ester 571190-08-4P 571190-14-2P, 6-Bromo-8-cyclopentyl-2-(4-methoxybenzylamino)-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-15-3P, 8-Cyclopentyl-6-[1-ethoxyvinyl-2-(4-methoxybenzylamino)]-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 571193-85-6P
ROLE: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

INDEX TERM: 108-49-6, 2,6-Dimethylpiperazine 109-04-6, 2-Bromopyridine 110-80-5, 2-Ethoxyethanol 110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 141-86-6, 2,6-Diaminopyridine 141-91-3, 2,6-Dimethylmorpholine 504-29-0, 2-Aminopyridine 763-69-9, 3-Ethoxypropionic acid ethyl ester 2393-23-9, 4-Methoxybenzylamine 24424-99-5, Di-tert-butyl dicarbonate 26448-91-9, 4-Ethoxybutyric acid ethyl ester 30315-34-5 39856-50-3, 5-Bromo-2-nitropyridine 84477-72-5, 2,2-Dimethylpiperazine 97674-02-7, Tributyl(1-ethoxyvinyl)stannane 161617-96-5, 3-[(Benzyloxycarbonyl)amino]propionic acid ethyl ester 211245-62-4, 4-Cyclopentylamino-2-methylsulfanylpyrimidine-5-carboxylic acid ethyl ester 211245-64-6, 4-Cyclopentylamino-2-methylsulfanylpyrimidine-5-carboxaldehyde 211245-66-8, 8-Cyclopentyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 211245-67-9, 8-Cyclopentyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 211245-79-3, 8-Cyclohexyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 211245-80-6, 8-Cyclohexyl-2-methylsulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 352363-26-9, 2-Chloro-8-isopropyl-8H-pyrido[2,3-d]pyrimidin-7-one 355141-49-0 362656-23-3, 8-Cyclopentyl-5-methyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 362656-25-5, 6-Bromo-8-cyclopentyl-5-methyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 362656-36-8, 8-Cyclopentyl-2-methanesulfinyl-5-methyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-63-1, 8-Cyclopentyl-6-ethyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-70-0, 8-Cyclopentyl-2-methylsulfanyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid 571188-83-5, 8-Cyclopentyl-6-fluoro-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571188-84-6, 8-Cyclopentyl-6-fluoro-2-methylsulfanyl-8H-

pyrido[2,3-d]pyrimidin-7-one 571188-93-7, 6-Benzyl-8-cyclopentyl-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-21-4, 6-Bromo-8-cyclopentyl-2-methylsulfanyl-8H-pyrido[2,3-d]pyrimidin-7-one 571189-23-6 571189-27-0, 6'-Amino-3,4,5,6-tetrahydro-2H-[1,3']bipyridinyl-4-ol 571189-33-8 571189-49-6, 5-(4-Methylpiperazin-1-yl)pyridin-2-ylamine 571189-53-2, [1-[6-[(6-Bromo-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidin-2-yl)amino]pyridin-3-yl]pyrrolidin-3-yl]carbamic acid tert-butyl ester 571189-59-8, 4-(6-Aminopyridin-3-yl)azepane-1-carboxylic acid tert-butyl ester 571189-87-2, 8-Cyclopentyl-6-(2-ethoxyethyl)-2-methanesulfinyl-8H-pyrido[2,3-d]pyrimidin-7-one 571190-12-0
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

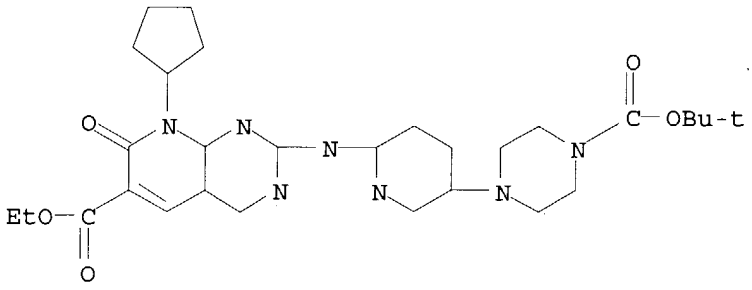
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):
(1) Hoffmann La Roche; WO 02064594 A 2002 HCAPLUS
(2) Warner, L; WO 0155148 A 2001 HCAPLUS
(3) Warner, L; WO 0170741 A 2001 HCAPLUS

IT **571188-66-4P**, 2-[[5-(4-tert-Butoxycarbonylpiperazin-1-yl)pyridin-2-yl]amino]-8-cyclopentyl-7-oxo-7,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid ethyl ester
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(cdk4 inhibitor; preparation of pyrido[2,3-d]pyrimidinones as cdk4 inhibitors for treating cell proliferative disorders)

RN 571188-66-4 HCAPLUS

CN Pyrido[2,3-d]pyrimidine-6-carboxylic acid, 8-cyclopentyl-2-[[5-[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]-2-pyridinyl]amino]-7,8-dihydro-7-oxo-, ethyl ester (9CI) (CA INDEX NAME)



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L18 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2001:713350 HCAPLUS
DOCUMENT NUMBER: 135:272982
ENTRY DATE: Entered STN: 28 Sep 2001
TITLE: Preparation of 5-alkylpyrido[2,3-d]pyrimidine tyrosine kinase inhibitors
INVENTOR(S): Booth, Richard John; Dobrusin, Ellen Myra; Toogood,

Peter Laurence; Vanderwel, Scott Norman
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C07D471-04
SECONDARY: A61K031-505
CLASSIFICATION: 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070741	A1	20010927	WO 2001-US2657	20010129
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EP 1268476	A1	20030102	EP 2001-905114	20010129
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NO 2002004235	A	20021105	NO 2002-4235	20020905
BG 107161	A	20030630	BG 2002-107161	20021002

PRIORITY APPLN. INFO.: US 2000-187124P P 20000306
WO 2001-US2657 W 20010129

OTHER SOURCE(S): MARPAT 135:272982
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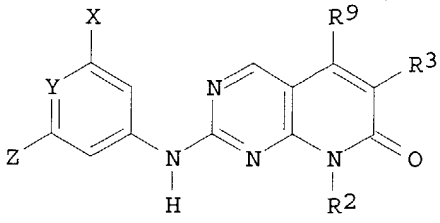

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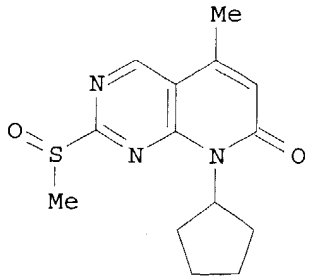

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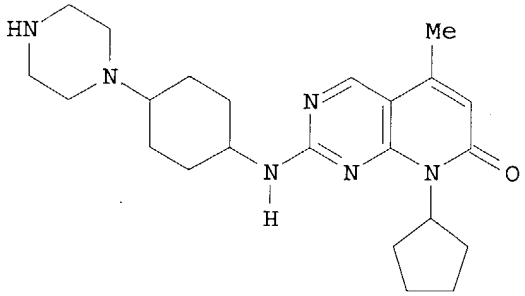

III

ABSTRACT:
The title pyridopyrimidines I [R2 = H, alkyl, alkyl substituted with halo, HO, alkoxy, H2N, alkylamino, HO2C, cyano, (hetero)aryl, carbocyclyl containing O, S, N atoms (un)substituted with halo, HO, alkyl, etc.; R3 = H, alkyl, alkoxy, halo, F3C, cyano, NO2, R4CO, R4O2C, R4R5NCO, R4R5NSO2, R4SO2, P(O)(OR4)(OR5), etc.; Y = N, CR7; R9 = alkyl, haloalkyl, aryl; X, Z = H, halo, alkyl, alkoxy, F3C, HO, cyano, NO2, R4R5N, R4R5N(:O), R4S, R4CO, R4O2C, R4R5NCO, T(CH2)mQR4, COT(CH2)mQR4, etc; m = 1-6; T = O, S, NR4, CR4R5; Q = O, S, NR4, CO2, carbocyclyl containing O, S, N atoms (un)substituted by HO, hydroxyalkyl, alkyl, alkoxy, alkoxycarbonyl, aminoalkyl, amino, etc., R7 = R4R5N, HO, R4O, R4S, R4CO, R4(CH3)n, R4SO2, R4O3S, CONR4SO2R5, CHO, NO2, T(CH2)mQR4, etc; n = 0-6; R4, R5 = H, alkyl, alkenyl, aryl, heteroaryl, etc; R4R5 with bonded N = carbocycle containing CO, O, S, SO, SO2, (un)substituted by halo, HO, hydroxyalkyl, alkyl, alkoxy, alkylcarbonyl, trifluoromethylalkyl, (hetero)aryl, NR10SO2R11, CONR10R11, CO2R10, etc; R4 also = alkyl (un)substituted by halo, 5-oxo-4,5-dihydro-1H-1,2,3-triazol-3-ylsulfonyl, carbocycle (un)substituted by halo, HO, hydroxyalkyl, alkyl, alkoxy, H2N, alkylamino, etc.; R10, R11 = H, halo, alkyl, alkoxy, alkoxycarbonyl, etc.] were prepared and have cyclin-dependent kinase and growth factor-mediated kinase inhibiting activity with use in treatment of cell proliferative disorders such as cancer and atherosclerosis. Thus, 4-(cyclopentylamino)-2-(methylthio)pyrimidine-5-carboxaldehyde underwent successive Grignard reaction with MeMgBr and N-methylmorpholine oxide/tetrapropylammonium perruthenate oxidation to give 1-[4-(cyclopentylamino)-2-(methylthio)-5-pyrimidinyl]ethanone. Cyclocondensation of the latter with tri-Et phosphonoacetate and then oxidation of the sulfide with trans-2-(phenylsulfonyl)-3-phenyloxaziridine gave the (methylsulfinyl)pyridopyrimidinone II which underwent substitution reaction with 4-[4-(tert-butoxycarbonyl)-1-piperazinyl]aniline and trifluoroacetic acid induced blocking group cleavage to give the (piperazinoanilino)pyridopyrimidino ne III. III inhibited cyclin-dependent kinase-4 enzyme with IC50 0.007 μM.

SUPPL. TERM: pyridopyrimidinone alkyl prepn kinase inhibitor; cell proliferative disease treatment pyridopyrimidinone; cancer treatment pyridopyrimidinone; atherosclerosis treatment

pyridopyrimidinone; restenosis treatment pyridopyrimidinone

INDEX TERM: Artery, disease
(coronary, restenosis, treatment; preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM: Antitumor agents
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM: Anti-Alzheimer's agents
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders and neurodegenerative disease)

INDEX TERM: Atherosclerosis
Psoriasis
(treatment; preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM:

362656-20-0P	362656-21-1P	362656-27-7P	362656-28-8P
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363623-53-4P
ROLE: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM: 80449-02-1
ROLE: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM: 350-46-9, 1-Fluoro-4-nitrobenzene 867-13-0, Triethyl phosphonoacetate 2356-16-3, Triethyl 2-fluoro-2-phosphonoacetate 3179-31-5, 3-Mercapto-1,2,4-triazole 5339-26-4, 4-Nitrophenethyl bromide 92394-00-8 170911-92-9 184845-02-1 211245-64-6 362656-58-4 362656-71-1
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

INDEX TERM: 154084-52-3P 362656-11-9P 362656-13-1P 362656-15-3P
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362656-62-0P 362656-64-2P 362656-67-5P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

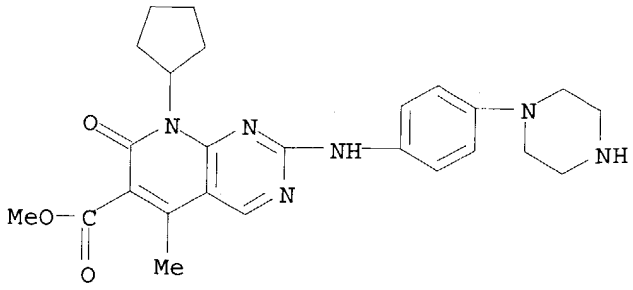
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):
(1) Blankley, C; US 5733914 A 1998 HCAPLUS
(2) Doherty, A; WO 9833798 A 1998 HCAPLUS
(3) Trumpp, K; WO 9961444 A 1999 HCAPLUS

IT **362656-73-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of kinase inhibiting alkylpyridopyrimidinones useful for treatment of cell proliferative disorders)

RN 362656-73-3 HCAPLUS

CN Pyrido[2,3-d]pyrimidine-6-carboxylic acid, 8-cyclopentyl-7,8-dihydro-5-methyl-7-oxo-2-[[4-(1-piperazinyl)phenyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

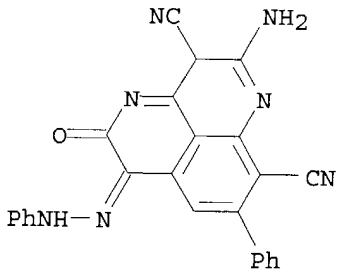


L18 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2000:806042 HCAPLUS
DOCUMENT NUMBER: 134:100830
ENTRY DATE: Entered STN: 16 Nov 2000
TITLE: Successful approach for the synthesis of newly fused heterocyclic compounds incorporating phenylperinaphthenone and naphthyridine derivatives
AUTHOR(S): Barsy, Magad A.; Khalafallah, Ali K.; Hassan, Mohamed E.; Rezk, Ahmed. A.
CORPORATE SOURCE: Department of Chemistry, Faculty of Science, South Valley University, Aswan, 81528, Egypt
SOURCE: Heterocyclic Communications (2000), 6(4), 339-344
CODEN: HCOMEX; ISSN: 0793-0283
PUBLISHER: Freund Publishing House Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
OTHER SOURCE(S): CASREACT 134:100830
ABSTRACT:
The reaction of (3-cyano-4-methyl-6-oxo-5-phenylhydrazonopyridin-2-yl)malononitrile with α,β-unsatd. nitriles, hydrazines, NH2OH.HCl, PhNCO, HCl/AcOH, or S afforded the corresponding newly fused heterocyclic azines. The structures of these compds. were established by anal. and spectral data.

SUPPL. TERM: pernaphthenone fused prepn; naphthyridine fused prepn; fused nitrogen heterocycle prepn; pyridinylmalononitrile unsatd nitrile cyclocondensation
INDEX TERM: Heterocyclic compounds
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nitrogen; preparation of fused heterocycles incorporating phenylperinaphthenone and naphthyridine)
INDEX TERM: 57-13-6, Urea, reactions 62-56-6, Thiourea, reactions 100-63-0, Phenylhydrazine 103-71-9, Phenyl isocyanate, reactions 2025-40-3, Ethyl α-cyanocinnamate 2286-29-5 2286-35-3 18300-87-3 149032-98-4
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of fused heterocycles incorporating phenylperinaphthenone and naphthyridine)
INDEX TERM: **320392-81-2P 320392-82-3P**
320392-83-4P 320392-84-5P 320392-85-6P
320392-86-7P 320392-87-8P **320392-88-9P**
320392-89-0P 320392-90-3P 320392-91-4P

320392-92-5P
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fused heterocycles incorporating phenylperinaphthenone and naphthyridine)

IT **320392-81-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fused heterocycles incorporating phenylperinaphthenone and naphthyridine)
RN 320392-81-2 HCAPLUS
CN 3H-Benzo[de][1,6]naphthyridine-3,9-dicarbonitrile, 2-amino-5,6-dihydro-5-oxo-8-phenyl-6-(phenylhydrazono)- (9CI) (CA INDEX NAME)



L18 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1996:94722 HCAPLUS
DOCUMENT NUMBER: 124:260988
ENTRY DATE: Entered STN: 14 Feb 1996
TITLE: The formation of polyheterocyclic systems by the reaction of 2-oxo-2H-1-benzopyran-3-carboxamide and related compounds with active methylene compounds
AUTHOR(S): O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E.
CORPORATE SOURCE: Univ. Chem. Lab., Trinity Coll., Dublin, Ire.
SOURCE: Journal of Chemical Research, Synopses (1995), (12), 490-1
CODEN: JRPSDC; ISSN: 0308-2342
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))
OTHER SOURCE(S): CASREACT 124:260988
ABSTRACT:
The reactions of 2-oxo-2H-1-benzopyran-3-carboxamide with Et 3-aminocrotonate and related active methylene compds. yielded a variety of unusual, complex polyheterocyclic structures. The products, derivs. of [1]benzopyano[3,4-c]pyridine, [1]benzopyrano[3,4-c]azocine and [1]benzopyrano[4,3,2-de][1,6]naphthyridine, were isolated, and their structural assignments confirmed by spectroscopy.

SUPPL. TERM: benzopyrancarboxamide oxo cyclization aminocrotonate; benzopyranopyridine prepn; benzopyranoazocine prepn; benzopyranonaphthyridine prepn; pyranopyridine benzo prepn; pyranonaphthyridine benzo prepn; pyranoazocine benzo prepn
INDEX TERM: Cyclocondensation reaction
(preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamide with active

methylene compds.)

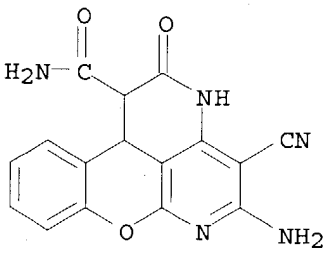
INDEX TERM: Acids, reactions
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(carbon, preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamide with active methylene compds.)

INDEX TERM: 868-54-2 1118-61-2, 3-Aminocrotonitrile 1846-78-2 7318-00-5, Ethyl 3-aminocrotonate
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamide with active methylene compds.)

INDEX TERM: 53635-87-3P 79225-40-4P 174968-55-9P
174968-56-0P 174968-57-1P 174968-58-2P
174968-61-7P 174968-62-8P 175134-54-0P
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamide with active methylene compds.)

INDEX TERM: 1846-92-0 30866-42-3 30866-44-5, 2H-1-Benzopyran-3-carboxylic acid, 2-oxo-, [(4-chlorophenyl)methylene]hydrazide
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamides with active methylene compds.)

IT **174968-56-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of heterocyclic compds. via condensation reactions of oxobenzopyrancarboxamide with active methylene compds.)
RN 174968-56-0 HCAPLUS
CN [1]Benzopyrano[4,3,2-de][1,6]naphthyridine-1-carboxamide, 5-amino-4-cyano-1,2,3,11b-tetrahydro-2-oxo- (9CI) (CA INDEX NAME)



L18 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:143149 HCAPLUS
DOCUMENT NUMBER: 140:199338
ENTRY DATE: Entered STN: 22 Feb 2004
TITLE: Preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors
INVENTOR(S): Goldstein, David Michael; Lim, Julie Anne
PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:

MAIN: C07D471-04
SECONDARY: A61K031-519; A61P029-00
CLASSIFICATION: 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014907	A1	20040219	WO 2003-EP8357	20030729

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004038999	A1	20040226	US 2003-634936	20030805

PRIORITY APPLN. INFO.: US 2002-401491P P 20020806
OTHER SOURCE(S): MARPAT 140:199338
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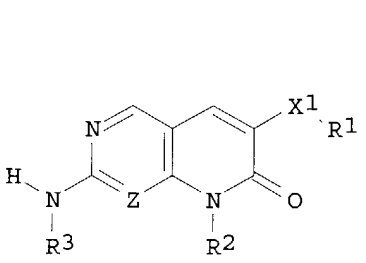

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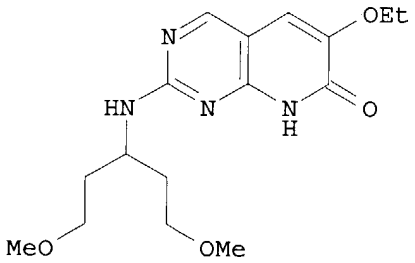


II

ABSTRACT:
The title compds. [I; R1 = alkyl, cycloalkyl, cycloakylalkyl, or CH2(alkenyl); X1 = O, NH, N(alkyl), S, CO; Z = N, CH; R2 = H, alkyl, cycloalkyl, etc.; R3 = alkyl, haloalkyl, aryl, etc.], were prepared E.g., a 3-step synthesis of II (starting from 4-amino-2-butylsulfanyl-4,5-dihydropyrimidine-5-carboxaldehyde and Et ethoxyacetate) which showed IC50 of about 7.7 μM in p38 MAP kinase in vitro assay, was given. The pharmaceutical composition comprising the compound I is claimed.

SUPPL. TERM: alkoxypyridopyrimidine prepn p38 MAP kinase inhibitor; pyridopyrimidine alkoxy prepn p38 MAP kinase inhibitor
INDEX TERM: Intestine, disease
(Crohn's, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)
INDEX TERM: Respiratory distress syndrome
(adult, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)
INDEX TERM: Spinal column, disease

(ankylosing spondylitis, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Lung, disease
(chronic obstructive, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Intestine, disease
(inflammatory, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Intestine, disease
(irritable bowel syndrome, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Anti-Alzheimer's agents
Anti-inflammatory agents
Antiasthmatics
Antirheumatic agents
Human
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Arthritis
(psoriatic arthritis, treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: Alzheimer's disease
Asthma
Psoriasis
Rheumatoid arthritis
(treatment of; preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: 165245-96-5, p38 MAP kinase
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: **661450-66-4P 661450-67-5P**
ROLE: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: **661450-62-0P 661450-63-1P**
661450-64-2P 661450-65-3P
661450-68-6P 661450-69-7P
661450-70-0P
ROLE: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: 817-95-8, Ethyl ethoxyacetate 2032-34-0, 3,3-Diethoxypropanenitrile 5909-24-0, Ethyl 4-chloro-2-methylthiopyrimidine-5-carboxylate 6290-49-9, Methyl methoxyacetate 28177-48-2, 2,6-Difluorophenol 38041-19-9, 4-Aminotetrahydropyran 58859-46-4, Ethyl 4-amino-1-piperidinecarboxylate 661450-77-7 661450-78-8
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

INDEX TERM: 770-31-0P, 4-Amino-2-(methylthio)pyrimidine-5-carboxaldehyde 17759-30-7P, 4-Methylamino-2-methylthiopyrimidine-5-methanol 76360-82-2P, Ethyl 4-(methylamino)-2-(methylthio)pyrimidine-

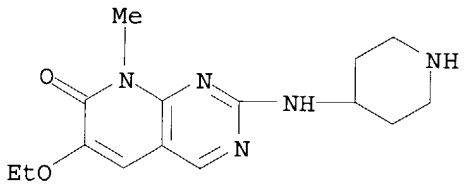
5-carboxylate 102669-01-2P 105161-35-1P 185040-32-8P,
4-Methylamino-2-methylthiopyrimidine-5-carboxaldehyde
185040-33-9P 185040-34-0P 185040-35-1P,
4-Ethylamino-2-methylthiopyrimidine-5-carboxaldehyde
449808-49-5P **449810-42-8P** 449811-11-4P
661450-71-1P 661450-72-2P 661450-73-3P 661450-74-4P
661450-75-5P 661450-76-6P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):
(1) Bartolome, A; US 2002055513 A1 2002 HCAPLUS
(2) La Roche, H; WO 0129041 A 2001 HCAPLUS
(3) Switz; WO 02064594 A 2002 HCAPLUS
(4) Warner-Lambert Company; WO 03062236 A 2003 HCAPLUS

IT **661450-66-4P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 6-alkoxy-pyridopyrimidines as p-38 MAP kinase inhibitors)

RN 661450-66-4 HCAPLUS
CN Pyrido[2,3-d]pyrimidin-7(8H)-one, 6-ethoxy-8-methyl-2-(4-piperidinylamino)- (9CI) (CA INDEX NAME)



L18 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:637680 HCAPLUS
DOCUMENT NUMBER: 137:185502
ENTRY DATE: Entered STN: 23 Aug 2002
TITLE: Preparation of 2,6-disubstituted 7-oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders
INVENTOR(S): Chen, Jian Jeffrey; Dunn, James Patrick; Goldstein, David Michael; Stahl, Christoph Martin
PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.
SOURCE: PCT Int. Appl., 207 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C07D487-04
SECONDARY: C07D471-04; C07D519-00
CLASSIFICATION: 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002064594	A2	20020822	WO 2002-EP1106	20020204	
WO 2002064594	A3	20030109			
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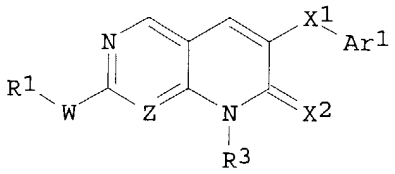
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1361880	A2	20031119	EP 2002-726103	20020204	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2003171584	A1	20030911	US 2002-73845	20020211	
US 6696566	B2	20040224			
NO 2003003540	A	20030811	NO 2003-3540	20030811	

PRIORITY APPLN. INFO.: US 2001-268375P P 20010212
US 2001-334654P P 20011130
WO 2002-EP1106 W 20020204

OTHER SOURCE(S): MARPAT 137:185502

GRAPHIC IMAGE:



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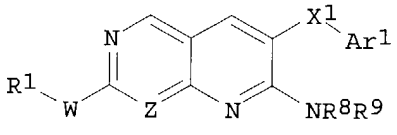

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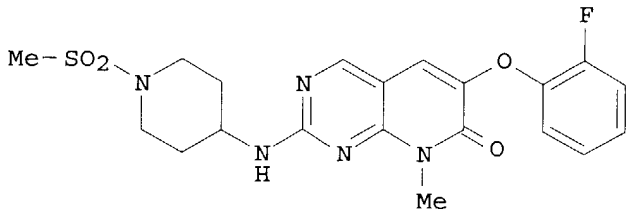

III

ABSTRACT:
The title compds. with general formula I or II [wherein Z = N or CH; W = NR2; X1 = O, NR4, S, CR5R6, or CO; R4, R5, and R6 = independently H or alkyl; X2 = O or NR7; Ar1 = (hetero)aryl; R2 = H, alkyl, acyl, alkoxycarbonyl, aryloxycarbonyl, heteroalkyl(oxy)carbonyl, or R21-R22; R21 = alkylene or CO; R22 = alkyl or alkoxy; R1 = H, (halo)alkyl, (hetero)aryl, (hetero)aralkyl, cyclo(alkyl)alkyl, hetero(cyclyl)alkyl, cyanoalkyl, heterocyclyl, or substituted hetero(alkyl)cycloalkyl, heterocycloamino, or acyl(alkylene); R3 = H, (cyclo)alkyl, cycloalkylalkyl, aryl, aralkyl, haloalkyl, heteroalkyl, cyanoalkyl, acylalkylene, (un)substituted amino; R7 = H or alkyl; R8 and R9 = independently H, (cyclo)alkyl, aryl(sulfonyl), aralkyl, cycloalkylalkyl, heteroalkyl, alkylsulfonyl, acyl, etc.; and pharmaceutically acceptable salts thereof] were prepared For example, the substitution reaction of 6-(2-fluorophenoxy)-8-methyl-2-(methylsulfonyl)pyrido[2,3-d]pyrimidin-7(8H)-one

(preparation given) and 1-(methylsulfonyl)piperidin-4-amine (preparation given), followed
by salt formation, gave the phenoxypyrido[2,3-d]pyrimidinone III•HCl. I and II have IC50 activity against p38 kinase in the range of 0.1-5000 nM, with the majority being 1-1000 nM. I and II are useful for the treatment of arthritis, Crohn's disease, irritable bowel syndrome, adult respiratory distress syndrome, chronic obstructive pulmonary disease, or Alzheimer's disease (no data).

SUPPL. TERM: pyridopyrimidine pyridopyrimidinone oxopyridopyrimidine prepn treatment p38 disorder; pyridopyrimidinone pyridopyrimidine oxopyridopyrimidine prepn Alzheimers disease treatment

INDEX TERM: Intestine, disease
(Crohn's; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: Respiratory distress syndrome
(adult; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: Lung, disease
(chronic obstructive; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: Intestine, disease
(irritable bowel syndrome; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: Alzheimer's disease
Anti-Alzheimer's agents
Antiarthritics
Arthritis
Human
(preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: **449808-64-4P 449809-00-1P**
449809-02-3P 449809-18-1P 449809-33-0P
ROLE: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(inhibitor; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: **449808-60-0P 449808-61-1P**
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449808-97-3P 449808-98-4P **449809-01-2P**
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ROLE: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(inhibitor; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

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ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: 165245-96-5, p38 Kinase
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

INDEX TERM: 770-31-0P
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

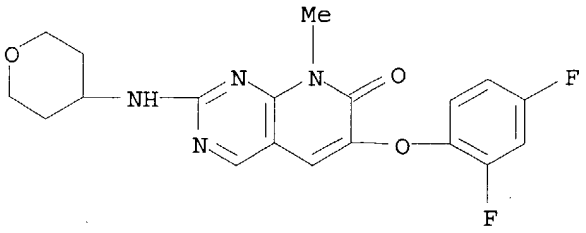
INDEX TERM: 62-53-3, Aniline, reactions 64-04-0, Phenethylamine
75-30-9, 2-Iodopropane 78-81-9, Isobutylamine 78-84-2, Isobutyraldehyde 96-32-2, Methyl bromoacetate 98-09-9,

Benzenesulfonyl chloride 100-46-9, Benzylamine, reactions 104-10-9, 2-(4-Aminophenyl)ethanol 108-98-5, Thiophenol, reactions 109-55-7, N,N-Dimethylpropane-1,3-diamine 109-73-9, Butylamine, reactions 109-85-3, 2-Methoxyethylamine 123-42-2, 4-Hydroxy-4-methyl2-pentanone 124-68-5, 2-Amino-2-methylpropan-1-ol 367-12-4, 2-Fluorophenol 367-25-9, 2,4-Difluoroaniline 371-40-4, 4-Fluoroaniline 371-41-5, 4-Fluorophenol 501-53-1, Benzyl chloroformate 502-83-0, 2-Amino-4-(methylthio)butan-1-ol 616-30-8, 3-Aminopropane-1,2-diol 765-30-0, Cyclopropylamine 1001-53-2, N-(2-Aminoethyl)acetamide 1003-03-8, Cyclopentylamine 1072-72-6, Tetrahydrothiopyran-4-one 1609-86-5, tert-Butyl isocyanate 1939-99-7, α-Toluenesulfonyl chloride 2026-48-4 2032-34-0, 3,3-Diethoxypropanenitrile 2065-23-8, Methyl phenoxyacetate 2454-96-8, 2-Amino-5-Methylpyridine hydrochloride 2516-47-4, Cyclopropylmethylamine 2941-20-0, α-Ethylbenzylamine 3218-02-8, Cyclohexanemethanamine 3731-51-9, Pyridin-2-ylmethylamine 3731-53-1, 4-(Aminomethyl)pyridine 4244-84-2, Ethyl β-alaninate hydrochloride 4313-56-8 4543-47-9, 3-Furfurylamine 4572-03-6, 1-(3-Aminopropyl)-4-methylpiperazine 4841-22-9, Methyl 4-chlorophenoxyacetate 5332-73-0, 3-Methoxypropylamine 5909-24-0, Ethyl 4-chloro-2-methylthiopyrimidine-5-carboxylate 6126-22-3 6956-85-0, Methyl 2-chlorophenoxyacetate 7116-38-3 7149-62-4 7663-77-6, 1-(3-Aminopropyl)pyrrolidin-2-one 10316-79-7 16369-14-5, 2-Aminopentan-1-ol 16867-03-1, 2-Aminopyridin-3-ol 18944-77-9 20173-24-4, 2-(Pyridin-3-yl)ethylamine 27489-62-9, trans-4-Aminocyclohexanol 27578-60-5, 2-Piperidin-1-ylethylamine 28875-17-4, N-(tert-Butoxycarbonyl)-L-alanine methyl ester 38041-19-9, 4-Aminotetrahydropyran 38519-63-0, 4-(2-Diethylaminoethoxy)aniline 40296-46-6 50541-93-0, 4-Amino-1-benzylpiperidine 58859-46-4, Ethyl 4-amino-1-piperidinecarboxylate 70183-89-0 129368-01-0 138564-16-6 141286-91-1, Methyl 2,6-difluorophenoxyacetate 210240-73-6 215940-92-4 226396-70-9 449811-63-6 449811-69-2 449811-71-6 449811-73-8 449811-75-0 449811-76-1 449811-78-3 **449811-79-4** 449811-81-8 449811-82-9 449811-84-1 449811-85-2 **449811-86-3** 449811-87-4
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

IT **449808-64-4P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(inhibitor; preparation of oxopyrido[2,3-d]pyrimidines for treating p38 mediated disorders)

RN 449808-64-4 HCAPLUS

CN Pyrido[2,3-d]pyrimidin-7(8H)-one, 6-(2,4-difluorophenoxy)-8-methyl-2-[(tetrahydro-2H-pyran-4-yl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

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L18 ANSWER 7 OF 9 USPATFULL on STN DUPLICATE 2
ACCESSION NUMBER: 2003:245170 USPATFULL
TITLE: 6-Substituted pyrido-pyrimidines
INVENTOR(S): Chen, Jian Jeffrey, Santa Clara, CA, UNITED STATES
Dunn, James Patrick, Los Altos, CA, UNITED STATES
Goldstein, David Michael, San Jose, CA, UNITED STATES
Stahl, Christoph Martin, Freiburg, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003171584	A1	20030911	
	US 6696566	B2	20040224	
APPLICATION INFO.:	US 2002-73845	A1	20020211	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-268375P	20010212 (60)
	US 2001-334654P	20011130 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Rohan Peries, Roche Bioscience, Patent Law Dept. M/S A2-250, 3401 Hillview Avenue, Palo Alto, CA, 94304
NUMBER OF CLAIMS: 59
EXEMPLARY CLAIM: 1
LINE COUNT: 4507
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compounds of the Formula I and II:
##STR1##

wherein R.sup.1, R.sup.3, W, Z, X.sup.1, X.sup.2, Ar.sup.1, R.sup.8 and R.sup.9 are as defined herein, and methods and intermediates for their preparation and uses thereof.

L18 ANSWER 8 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2004:51568 USPATFULL
TITLE: 6-alkoxy-pyrido-pyrimidines
INVENTOR(S): Goldstein, David Michael, San Jose, CA, UNITED STATES
Lim, Julie Anne, San Mateo, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004038999	A1	20040226
APPLICATION INFO.:	US 2003-634936	A1	20030805 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-401491P	20020806 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ROCHE PALO ALTO LLC, Patent Law Dept. M/S A2-250, 3431 Hillview Avenue, Palo Alto, CA, 94304
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1550
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compounds of the Formula I: ##STR1##

wherein R.sup.1 is alkyl, cycloalkyl, cycloalkylalkyl, or --CH.sub.2-alkenyl, X.sup.1 is O, NH, N(alkyl), S or --C(.dbd.O), Z is N or CH; and R.sup.2 and R.sup.3 are as defined herein, pharmaceutical compositions comprising same, and methods for their use.

L18 ANSWER 9 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2003:214358 USPATFULL
TITLE: 2-(Pyridin-2-ylamino)-pyrido[2,3-d]pyrimidin-7-ones
INVENTOR(S): Barvian, Mark, Ann Arbor, MI, UNITED STATES
Booth, Richard John, Ann Arbor, MI, UNITED STATES
Ouin, John, III, Ann Arbor, MI, UNITED STATES
Thomas Repine, Joseph, Ann Arbor, MI, UNITED STATES
Sheehan, Derek J., Dexter, MI, UNITED STATES
Toogood, Peter Laurence, Ann Arbor, MI, UNITED STATES
Vanderwel, Scott Norman, Ann Arbor, MI, UNITED STATES
Zhou, Hairong, Ann Arbor, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003149001	A1	20030807
APPLICATION INFO.:	US 2003-345778	A1	20030116 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-350877P	20020122 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Rosanne Goodman, Warner-Lambert Company LLC, 2800 Plymouth Road, Ann Arbor, MI, 48105
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 4848
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides substituted 2-aminopyridines useful in treating cell proliferative disorders. The novel compounds of the present invention are potent inhibitors of cyclin-dependent kinases 4 (cdk4). ##STR1##

=> FIL STNGUIDE

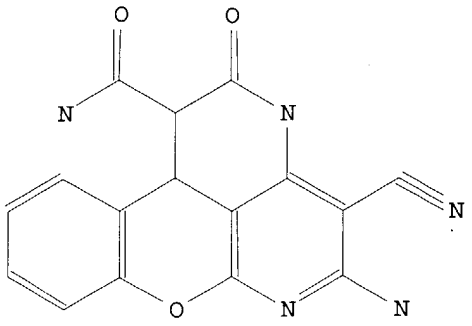
FILE 'STNGUIDE' ENTERED AT 15:49:58 ON 07 MAY 2004

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 30, 2004 (20040430/UP).

=> d l9 qrd phy che rx
YOU HAVE REQUESTED DATA FROM FILE 'BEILSTEIN' - CONTINUE? (Y)/N:y

L9 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	7496367
Chemical Name (CN):	5-amino-4-cyano-2-oxo-1,2,3,11b-tetrahydro<1>benzoppyrano<4,3,2-de><1,6>napthyridine-1-carboxamide
Autonom Name (AUN):	5-amino-4-cyano-2-oxo-1,2,3,11b-tetrahydro-7-oxa-3,6-diaza-benzo<de>anthracene-1-carboxylic acid amide
Molec. Formula (MF):	C16 H11 N5 O3
Molecular Weight (MW):	321.29
Lawson Number (LN):	32267
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6375343
Tautomer ID (TAUTID):	7050481
Beilstein Citation (BSO):	6-27
Entry Date (DED):	1996/11/12
Update Date (DUPD):	1997/08/11



Field Availability:

Code	Name	Occurrence
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MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1

CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
MP	Melting Point	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Melting Point:

Value (MP) (Cel)	Ref.	Note
307	1	1

Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

Notes(s):
1. 50

Nuclear Magnetic Resonance:

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): dimethylsulfoxide-d6
Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): dimethylsulfoxide-d6
Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): dimethylsulfoxide-d6
Note(s) (.COM): 1H-1H
Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

Infrared Spectrum:

Description (.KW)	Solvent (.SOL)	Ref.	Note
Bands	nujol	1	1

Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

Notes(s):
1. 3419 - 1640 cm**(-1)

Reaction:
RX

Reaction ID (.ID):	4505431
Reactant BRN (.RBRN):	9086, 1756131
Reactant (.RCT):	2-oxo-2H-chromene-3-carboxylic acid amide, 2-amino-prop-1-ene-1,1,3-tricarbonitrile
Product BRN (.PBRN):	7496367
Product (.PRO):	5-amino-4-cyano-2-oxo-1,2,3,11b-tetrahydro-7-oxa-3,6-diaza-benzo<de>anthracene-1-carboxylic acid amide
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	4505431.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	63 percent (BRN=7496367)
Reagent (.RGT):	NH3 33percent aq.
Solvent (.SOL):	H2O
Time (.TIM):	20 hour(s)
Other Conditions (.COND):	Heating

Reference(s):
1. O'Callaghan, Conor N.; McMurry, T. Brian H.; O'Brien, John E., J.Chem.Res.Miniprint, CODEN: JRMPDM(12), <1995>, 3001-3017; BABS-6017436

=> FIL STNGUIDE

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